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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,248	04/18/2006	Yuji Shinohara	127713	2140
27049 7590 12/24/2009 OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850				
EXAMINER				
BOHATY, ANDREW K				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
12/24/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

OfficeAction27049@oliff.com
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Office Action Summary

Application No.

10/576,248

Applicant(s)

SHINOHARA ET AL.

Examiner

Andrew K. Bohaty

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-11,13-21,23,26-28 and 30-36 is/are pending in the application.
- 4a) Of the above claim(s) 14,15,31 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-11,13,16-21,26-28,30 and 33-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is in response to the amendment filed October 21, 2009 which amends the specification and claims 1, 2, 5-11, 16, 17, 21, 23, and 26-28, cancels claims 3, 4, 12, 22, 24, 25, and 29, and adds claims 33-36. Claims 1, 2, 5-11, 13-21, 23, 26-28, and 30-36 are pending, where claims 14, 15, 31, and 32 are withdrawn from consideration.

Response to Amendment

2. The objection to the specification as set forth in the Office action mailed October 21, 2009 is withdrawn due to amendment of the specification.
3. The objection to the claims as set forth in the Office action mailed October 21, 2009 is withdrawn due to amendment of the specification.
4. The rejection of claims 1, 2, 4, 9, 12, 13 and 29 under 35 U.S.C. 102(b) as being anticipated by Azuma et al. (WO 00/41443) as set forth in the Office action mailed October 21, 2009 is overcome due to claim amendment or claim cancellation.
5. The rejection of claims 8, 16, 23-28, and 30 under 35 U.S.C. 103(a) as being unpatentable over Azuma et al. (WO 00/41443) in view of Enomoto et al (KR 2003/078731) as set forth in the Office action mailed October 21, 2009 is overcome due to claim amendment or claim cancellation.

Response to Arguments

6. Applicant's arguments with respect to claims 1, 2, 5-11, 13, 16-21, 23, 26-28, and 30 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 2, 5-11, 13, 16-21, 23, 26-28, 20, and 33-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Enomoto et al (KR 2003/078731), where Naito et al. (US 2004/0018386) (hereafter "Naito") is a patent family member was will be used as the English translation.

9. Regarding claims 1, 2, 5-11, 13, 16-21, 23, 26-28, 20, and 33-36, Naito discloses a hole transport material (paragraphs [0010] and [0100], poly(3,4-ethylenedioxythiophene/styrenesulfonic acid) (PEDOT.PSS)) having the function of transporting holes in an organic EL device (paragraph [0010]) (Naito discloses the material as a hole injection layer, but the layer transport holes from the anode into the emission layer), wherein the material is dissolved in a solvent to make a 0.4 - 2.8 wt% solution (paragraph [0084]) and is purified using ultrafiltration with a membrane filter with a molecular weight cutoff between 8,000-25,000 to remove low molecular weight molecules (paragraph [0081]) (This means molecular weights smaller than these value

will be removed from the polymer during ultrafiltration). This means impurities having a molecular weight of 5,000 or less will be removed during the purification process. This purification method is similar as the method disclosed by the applicants in the specification, with the only difference being of the membrane filter. Naito teaches the use of a larger molecular weight cutoff filter. This means that not only are the 5,000 molecular weight materials removed from the solution (as taught by the applicants), but larger impurities/compounds are removed as well. Therefore, the amount of the 5,000 molecular weight or less impurities found in Naito will be the same as the applicants.

10. Further both the applicants and Naito teach the purification of the same material, PEDOT:PSS (Baytron), and both get the material from the manufacturer place Bayer Co.; therefore, the materials would have been synthesized in the same manner and hole transporting materials will contain the same impurities, such as ethylene glycol, sulfate ions, formate ions, oxalate ions, acetate ions, Na ions, Ma ions, K ions, Ca ions, Cr ions Mn, ions, Fe ions, Ni ions, Zn ions, and Sr ions.

11. Although Naito does not teach all the different impurities, such as ethylene glycol, sulfate ions, formate ions, oxalate ions, acetate ions, Na ions, Ma ions, K ions, Ca ions, Cr ions Mn, ions, Fe ions, Ni ions, Zn ions, and Sr ions, that the applicants claims are present, the material used by Naito will contain all the same impurities since the materials are the same and are both obtained from the same manufacturer.

12. Even though Naito teaches the use of a larger molecular weight cutoff filter, the lower molecular weight compounds of 5,000 or less will still be removed in the same amount as in the applicants' disclosure since both methods utilize ultrafiltration;

therefore, the amount of the impurities in the Naito's and the applicants' solutions will be the same.

13. Since Naito uses similar purification technique as the applicants and use the same material as the applicants (from the same location) the purified material of Naito will have the same properties (i.e. the kinds of impurities and amount of the impurities) as the applicants' solutions containing the purified PEDOT.PSS; therefore, Naito anticipates, all of the applicants' claims and will have all the inherent properties of the solutions (as found in claims 5-8, 10, 11, 23, 26, and 34).

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

15. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew K. Bohaty whose telephone number is (571)270-1148. The examiner can normally be reached on Monday through Thursday 7:30 am to 5:00 pm EST and every other Friday from 7:30 am to 4 pm EST.

17. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on (571)272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. K. B./
Andrew K. Bohaty
Patent Examiner, Art Unit 1794

/D. Lawrence Tarazano/
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